Real Change or a Red Herring?: The FDA's Proposal to Alter the Nutrition Facts Label After Two Decades
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I. Introduction

On March 3, 2014, the Food and Drug Administration (“FDA”) announced a proposal to update the Nutrition Facts label. 1 It has been two decades since the FDA has updated the Nutrition Facts label; thus, change has been long overdue. 2 Unfortunately, the agency’s primary focus in its proposal appears to be on relatively insignificant details, which will do little to create a healthier America; instead, the proposal should have reflected the nation-wide obesity and illness epidemic plaguing American society. 3 Simply put, the FDA failed to embrace the opportunity to change the future of America’s health.

The agency’s proposal seeks to visually change the format of the label; require a declaration of added sugars, potassium, and vitamin D levels; update the serving size recommendations; no longer require mandatory labeling for calories from fat or vitamins A and C; and a few other nominal changes. 4 This is the first significant redrawing of the nutrition information on food labels since the federal government started requiring it in the early 1990s. 5 Unfortunately, these marginal design changes to the label will do little to curb the obesity and illness epidemic severely affecting our nation. 6

4 See Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1, at 11880.
6 See Abdukadirov, supra note 3.
Obesity rates have skyrocketed over the last three decades, with a twofold increase (from 15 to 34 percent) in adults between 1976 and 1980 and 2007 and 2009.\textsuperscript{7} Even more alarming is the statistical data evidencing a more than threefold percent increase (5 to 17) among children and adolescents.\textsuperscript{8} Furthermore, chronic diseases such as cancer, stroke, and heart disease are the leading causes of death and disability in the United States.\textsuperscript{9} Sadly, obesity contributes to an estimated 400,000 deaths in the United States each year.\textsuperscript{10} Governmental campaigns to end obesity in America have popped up everywhere, yet important opportunities to tackle obesity at the national policy level have gone largely unmet.\textsuperscript{11}

The FDA clearly acknowledges these statistics in its proposal, stating: “poor diet is a contributing factor associated with morbidity and mortality.”\textsuperscript{12} Yet, the FDA continues perpetuating the cycle of sickening and fattening America with its allowance of carcinogenic-laden,\textsuperscript{13} addictive,\textsuperscript{14} and hormone-laced\textsuperscript{15} food products present on most American grocery store shelves today. Although the FDA acknowledges that it is “[c]onsidering the large portion of the population that is at risk for chronic disease in proposing changes to the label’s content and format,” the agency appears to be nonchalant about informing consumers of the multitude of

\begin{footnotesize}
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\item Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1, at 11885.
\item Id.
\item Id. at 11885.
\item Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1, at 11885.
\item See Mark Hyman, Sweet Poison: How Sugar, Not Cocaine, Is One of the Most Addictive and Dangerous Substances, DAILY NEWS (Feb. 10, 2014, 2:00 AM), http://www.nydailynews.com/life-style/health/white-poison-danger-sugar-beat-article-1.1605232 (“[S]ugar is eight times more addictive than cocaine . . . .”)
\item See Steroid Hormone Implants Used for Growth in Food-Producing Animals, U.S. FOOD & DRUG ADMIN., http://www.fda.gov/animalveterinary/safetyhealth/productsafetyinformation/ucm055436.htm (last visited Sept. 7, 2014) (“Since the 1950s, the [FDA] has approved a number of steroid hormone drugs for use in beef cattle and sheep, including natural estrogen, progesterone [and] testosterone . . . [t]o increase the animals’ growth rate . . . .”).
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dangerous side effects particular foods and its ingredients can cause to one’s health.\textsuperscript{16} Additionally, the FDA fails to provide the public with vital information regarding specific nutrient levels in their food, e.g., ORAC values, Glycemic load, and Omega Fatty Acids, which would help consumers make better, more strategic food choices.\textsuperscript{17}

The first section of this comment will describe a brief history of food labeling and the ultimate creation of the Nutrition Facts label.

The second section of this comment will address the weaknesses in the FDA’s proposal, including: (1) the prominence of the word “calories” on the label, and how this will incorrectly affect consumer’s perception of the importance of calories; (2) the elimination of calories from fat from the label; and (3) mandating the declaration of added sugars on the label, which is a masquerade for the sugar addiction and obesity crisis in America.

The third section of this comment will address the nutrients and substances that the FDA failed to address in its proposal and include on the Nutrition Facts label. The declaration of information regarding a food’s content of Omega-3 and Omega-6 fatty acids, antioxidant levels, and glycemic load, along with full disclosure of harmful substances and ingredients like trans fats, Monosodium Glutamate (“MSG”), and caffeine would greatly benefit the consumer by helping them more easily analyze and compare food products to decide which foods to consume.\textsuperscript{18} Furthermore, warning labels affixed to food products containing high amounts of

\textsuperscript{16} Revisions to Nutrition Supplement and Nutrition Facts Labels, \textit{supra} note 1, at 11887.

\textsuperscript{17} See id. at 11880; see also Mary Bradley, \textit{Proposed Changes to the FDA’s Nutrition Facts Labels – Will They Help You Eat Better?}, HUFFINGTON POST BLOG (Mar. 31, 2014, 1:13 PM), http://www.huffingtonpost.com/mary-bradley/fdas-proposed-changes-to-_b_4939906.html.

harmful ingredients known to cause obesity and illness, such as sugar and fat, would also help fight the obesity crisis affecting this nation.\textsuperscript{19}

The last section of this comment will address the legal action that needs to be taken by the FDA, Secretary of Health and Human Services (‘‘HHS’’), or Congress to require disclosure of certain nutrients on the Nutrition Facts label.

\textbf{II. Background}

The FDA prides itself on being the oldest comprehensive consumer protection agency in the United States, operating as a scientific institution since the mid-1800s.\textsuperscript{20} Today, the FDA regulates $1 trillion worth of products a year and ensures the safety of all food except for meat, poultry, and some egg products.\textsuperscript{21}

In 1938, Congress passed a set of laws called the Federal Food, Drug, and Cosmetic Act (‘‘FDCA’’), which gave the FDA the authority to oversee and regulate the safety of food, drugs, and cosmetics on Americans shelves.\textsuperscript{22} Two decades after the enactment of the FDCA, the agency recognized that the safety of many chemicals added to foods needed to be determined.\textsuperscript{23}

In enacting the Food Additives Amendment (‘‘FAA’’) in 1958, Congress determined that certain substances were unsafe and certain substances were ‘‘generally recognized as safe,’’ or

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\item \textsuperscript{19} \textit{See}, e.g., Raja Mishra, \textit{Food Warning Labels on FDA’s Plate}, THE BOSTON GLOBE (Apr. 23, 2004), http://www.boston.com/news/nation/articles/2004/04/23/food_warning_labels_on_fdas_plate/?page=full (statement of former FDA Commissioner, Lester M. Crawford) (‘‘[W]e could consider saying, ‘If you indulge in this, there may be health consequences.’’
\item \textsuperscript{20} \textit{See} Janssen, \textit{supra} note 3; \textit{see also History}, U.S. FOOD & DRUG ADMIN., http://www.fda.gov/aboutfda/whatwedo/history/default.htm (last visited Sept. 7, 2014).
\item \textsuperscript{22} \textit{See} 21 U.S.C. §§ 9, 393 (1938); \textit{see also Food, Drug, and Cosmetic Act}, COSMETICSINFO.ORG, http://www.cosmeticsinfo.org/Cosmetic-act (last visited Sept. 7, 2014) (‘‘[T]he law gives [the] FDA the authority to ban or restrict . . . ingredients for safety reasons[,] . . . mandate warning labels[,] . . . inspect manufacturing facilities[,] and] . . . seize unsafe or misbranded products . . . .’’).
commonly referred to as “GRAS.” The substances designated to the GRAS list, however, do not require a formal premarket review by the FDA to assure their safety.

Even with the enactment of the FDCA and FAA, the FDA still keeps consumers in the dark as to certain harmful ingredients present in foods. The FDA has yet to issue mandatory labeling for MSG, artificial sweeteners, sugar alcohol, and caffeine content. The FDA allows voluntary labeling of such ingredients because it considers these substances to be GRAS, even when numerous scientific studies evidence a strong connection between consumption of these substances and obesity, illness, and death.

The FDA, however, concludes that certain substances are safe because the substances’ “[s]afety had been established by a long history of use in food[,] . . . their customary or projected conditions in use, and the information generally available to scientists about the substances.” Thus, even though numerous experiments have been conducted on GRAS substances throughout

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24 See id.
25 See 21 C.F.R. § 182.1 (1988); see also History of the GRAS List and SCOOGS Reviews, supra note 23.
26 See, e.g., Bradley, supra note 17.
28 See Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1, at 11902 (“We also decline . . . to require manufacturers to declare the specific type of artificial sweetener used on the Nutrition Facts label so that consumers can be made aware . . . when artificial sweeteners are substituted for sugars, and the overall level of the artificial sweeteners in the food.”).
29 See id. at 11908.
30 See Brady Dennis, Slew of Caffeinated Food Products Has FDA Jittery, THE WASH. POST (June 1, 2013), http://www.washingtonpost.com/national/health-science/slew-of-caffeinated-food-products-has-fda-jittery/2013/06/01/2b9049ee-c479-11e2-914f-a7aba60512a7_story.html (“Manufacturers must include caffeine on their lists of ingredients, but they are not required to detail how much in each product.”).
32 See Kimberly Kindy, Are Secret, Dangerous Ingredients in Your Food?, THE WASH. POST (Apr. 7, 2014), http://www.washingtonpost.com/blogs/federal-eye/wp/2014/04/07/are-secret-possibly-dangerous-ingredients-in-your-food/ (explaining how the lack of transparency with the GRAS process is a public health threat and stating that the acronym “GRAS” should stand for “Generally Recognized as Secret” instead of “Generally Recognized as Safe.”).
33 See History of the GRAS List and SCOOGS Reviews, supra note 23.
the years raising speculation as to the safety of such additives, the FDA continues allowing
harmful substances on the GRAS list.  

In 1990, the Nutrition Labeling and Education Act ("NLEA") was enacted, which
preempted state requirements about food standards and required all packaged foods to bear
nutrition labeling.  

Soon after this enactment, on January 6, 1993, the FDA issued its final rule
for the labeling, and manufacturers were no longer permitted to provide certain nutritional
information on a voluntary basis, such as calories, fat, and carbohydrates.  

Through the NLEA, the FDA is allowed to essentially pick and choose which nutrients to include on its label, citing
space constraints as its main reason for disallowing the inclusion of certain nutrients.  

Though earnest in its intention to increase consumers’ awareness, the information on the
label was – and remains today – essentially unintelligible for the average American.  

Even prior Secretary of HHS, Dr. Louis W. Sullivan, stated that “[t]he grocery store has become the Tower
of Babel, and consumers need to be linguists, scientists, and mind readers to understand many of
the labels they see.”  

Thus, even though consumers may have information at their fingertips about a food’s nutritional content, there still remains the problem of whether the information is
easily comprehensible or fully disclosed. In addition, the FDA fails to affix warning labels

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34 See 21 C.F.R §182.1 (1988); see also Michael F. Jacobson, FDA Is Not Protecting Consumers from Unsafe Food
Additives, HUFFINGTON POST BLOG (July 11, 2013, 6:20 PM), http://www.huffingtonpost.com/michael-f-
jacobson/food-additives-_b_1654034.html.
35 See Significant Dates in U.S. Food and Drug Law History, U.S. FOOD & DRUG ADMIN.,
36 See Nutrition Facts Label: 20 and Evolving, supra note 2; see also What Exactly Are You Eating?, L.A. TIMES
37 See, e.g., Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1, 11888 (“Space constraints
on the label of most foods make declaring all essential nutrients impractical.”).
39 Id. (quoting Louis W. Sullivan, Remarks by the Secretary of Health and Human Services at the National Food
Policy Conference, 2 Reg. Affairs 169-174 (1990); see also Philip J. Hilts, U.S. Plans to Make Sweeping Changes in
Labels on Food, N.Y. TIMES (Mar. 8, 1990), http://www.nytimes.com/1990/03/08/us/us-plans-to-make-sweeping-
changes-in-labels-on-food.html.
cautioning consumers of their risk of obesity and illness from consuming particular foods with
high fat or sugar contents.

III. The Proposal’s Weaknesses

a. Aesthetic Design Flaw: Calories Aren’t the End-All-Be-All

The FDA argues that the modification of the Nutrition Fact label will give more
prominence to calories, thus benefitting consumers in weight control and maintenance.40
However, bolding and increasing the font size of the word “calories” will mislead the consumer
into thinking calories are the most important item on the Nutrition Facts label, which is simply
untrue.41

This is better explained with the following scenario: a consumer walks into her nearest
convenience store looking for a healthy, low-calorie beverage to satisfy her thirst. She walks to
the shelf and sees both a Diet Coke can and a bottle of coconut water. She first picks up the
coconut water and her eye immediately goes to the bolded, large font spelling out “calories,” so
she thinks, “clearly calories are most important.” She reads through the label on the coconut
water and sees that it contains approximately 40 calories,42 so she instantly puts it back on the
shelf. She then picks up the Diet Coke can and sees that it contains zero calories.43 Thinking the
Diet Coke is the healthier choice, the consumer purchases the beverage and drinks it.

In my opinion, this scenario accurately describes many American consumers’ quest in
trying to find healthy food options, but ultimately failing. The consumer in the scenario above
erroneously believed the Diet Coke to be healthier because of its lack of calories. However, what

40 See Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1, at 11882
41 See Jill Coleman, 5 Reasons Calories Aren’t as Important as You Think, JILL FIT PHYSIQUES,
water”).
she did not know is that coconut water has been consumed for decades by athletes,\textsuperscript{44} dubbed as the “miracle water,” and is known for its high potassium levels and natural-occurring electrolytes, which Diet Coke is sorely lacking.\textsuperscript{45} Diet Coke, on the other hand, contains mold inhibitors, e.g., sodium benzoate and potassium benzoate, which can cause severe damage to DNA; artificial sweeteners like aspartame which has been linked to cancer and shown to disrupt your body’s natural hormone production; 4-methlimidazole, a contaminant in the caramel coloring of soda, which leads to an increase in lung cancer; and phosphoric acid, which has been associated with urinary changes that promote kidney stones and ultimately kidney disease, just to name a few.\textsuperscript{46} Furthermore, studies have shown that within a few years of drinking diet sodas regularly, one’s weight will increase.\textsuperscript{47} Although consumption of these ingredients are known to be dangerous,\textsuperscript{48} the FDA has instead chosen to focus its attention on frivolous, aesthetic details on the Nutrition Facts label. Although knowing one’s daily caloric intake is vital information to living a healthy lifestyle, the specific food choices one makes matter even more.\textsuperscript{49}

In fact, Harvard University conducted a research study proving that the type of calories consumed matter more than the quantity of calories.\textsuperscript{50} Dariush Mozaffarian, a cardiologist and


\textsuperscript{47} See HUNGRY FOR CHANGE (Permacology Productions).

\textsuperscript{48} See, e.g., Oaklander, supra note 46; see also Main, supra note 46.

\textsuperscript{49} See Coleman, supra note 41.

epidemiologist at the Harvard School of Public Health and lead author of the study, said in an interview: “just counting calories won’t matter much unless you look at the kinds of calories you’re eating.” Indeed, caloric intake levels and obesity are directly related, however, more emphasis should be made on the type of calorie being consumed instead of the total calories in the food product.

Jon Gabriel, author and weight loss expert, explained it best when he stated, “you could eat until your heart is content; you could eat 10,000 calories a day, but if you’re not getting the specific nutrients your body needs in a way they can digest and assimilate, then you’re starving on a nutritional basis.” In conclusion, the only benefit that bolding the word “calories” on the Nutrition Facts label will have for American consumers is to take their attention away from other important facts about the product they are about to consume: the inclusion of harmful ingredients, the amount of sugar in the food, and the fat content, among others.

b. All Calories Aren’t Created Equal

The FDA proposes to exclude the calories from fat from the Nutrition Facts label because it believes that the type of fat consumed is more relevant than overall total fat intake. Contradictorily, the FDA’s proposal acknowledges that “[A]mericans consume too many

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51 Id. (emphasis added).
52 See Obesity, MAYO CLINIC, http://www.mayoclinic.org/diseases-conditions/obesity/basics/causes/con-20014834 (last visited Sept. 7, 2014); see also What Causes Overweight and Obesity?, NAT’L HEART, LUNG & BLOOD INST., http://www.nhlbi.nih.gov/health/health-topics/topics/obe/causes.html (last visited Sept. 7, 2014) (explaining that the calories consumed needs to be balanced with the calories eliminated from the body); Gary Taubes, What Really Makes Us Fat, N.Y. TIMES (June 30, 2012), http://www.nytimes.com/2012/07/01/opinion/sunday/what-really-makes-us-fat.html?_r=0 (“We get fat because we take in more calories than we expend . . . .”).
54 See HUNGRY FOR CHANGE, supra note 47.
55 See Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1, at 11882, 11891-92.
calories from solid fats . . . ,” which inevitably leads to weight gain and can contribute to illness.

The American Heart Association (“AHA”) recommends limiting total daily calories from fat to 25-35% to maintain a healthy weight and prevent heart disease. More specifically, the AHA recommends consuming less than ten percent of calories each day from saturated fats. Thus, the Nutrition Facts label should declare not only the calories from fat, but exactly which types of fats those calories are coming from, e.g., monounsaturated, saturated, trans, or polyunsaturated.

The FDA is urging the removal of calories from fat from the label with confidence that the elimination will have no effect on consumers’ judgments of a food product’s healthfulness or affect the consumers’ accuracy in identifying nutrient contents of products. This argument, however, is illogical because consumers need to know where their calories are coming from in order to make healthy dietary decisions. In fact, in the same Harvard University research study

56 See id. at 11903.
58 See Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1 (Americans should consume less than 10 percent of calories from saturated fat. Saturated fat is known to increase the risk of cardiovascular disease . . . . ”; see also Know Your Fats, AM. HEART ASSOC., http://www.heart.org/HEARTORG/Conditions/Cholesterol/PreventionTreatmentofHighCholesterol/Know-Your-Fats_UCM_305628_Article.jsp (last visited Sept. 7, 2014) (recommending adults to consume fewer calories from fat to reduce risk of heart disease and stroke) (“Reduce[ ] saturated fat to no more than 5 to 6 percent of total calories . . . .” “Reduce[ ] the percent of calories from trans fat.”); see also Nelson & Zeratsky, supra note 57 (“Solid fats . . . [are] major contributors to heart disease.”).
61 See Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1, at 11881.
62 See, e.g., Know Your Fats, supra note 58.
mentioned previously, it was concluded that “[t]he number of calories consumed is not necessarily as important as the *quality* of those calories.”

For instance, eating one pound of sugar will fill you up with approximately 1,540 calories; you can also get 1,540 calories from consuming approximately 26 apples, which is undoubtedly healthier for your body. This is because consuming “empty calorie foods,” i.e., highly-processed foods, do not offer vitamins and minerals our bodies need. Furthermore, fats have the highest concentration of calories, but there is a key distinction between certain fats that needs to be made. For example, eating the popular Hostess Twinkies snack will give you 300 calories and 80 calories from fat. But an ounce of whole almonds, a snack known to be nutritional, packs less calories than a Twinkie (at 161 calories), yet more calories from fat (at over 100). What’s more, the Twinkies will give you 14% of your Daily Recommended Value (“DRV”) of fat, whereas that ounce of almonds will give you 21% of your DRV of fat.

At first glance, a consumer may think that eating the almonds is an unhealthier choice due to its higher fat content and calories from fat. However, consuming nuts has been shown in

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70 *Id.; See BARONI & DIMARCO, supra* note 68; *see also* Lynch, *supra* note 67.
numerous studies to help people lose weight and keep it off.\textsuperscript{71} If calories from fat remained on the label, the consumer would better understand that although almonds contain more fat and calories from fat, it is due to its healthy fat content, i.e., monounsaturated and polyunsaturated fats, instead of unhealthy fats.\textsuperscript{72} Thus, it is important for consumers to understand where their calories are coming from in order to make health-conscious decisions to balance a healthy lifestyle.

Theresa Albert, a registered nutritionist and author, states that “[l]ow calories may or may not make you thin . . . [o]verall, it is the quality of the calorie that counts rather than the calorie itself when it comes to fighting off diseases and maintaining health.”\textsuperscript{73} Thus, the FDA should keep calories from fat on the Nutrition Facts label and also include the types of fat where these calories are coming from. Because no guidelines have been published regarding their intake, most Americans do not consume enough healthy unsaturated fats each day.\textsuperscript{74} Thus, if calories from such healthy fats were identified on the label, consumers would better understand why the food appears to be so fatty – because it contains mostly healthy fats.

In particular, under the calories from fat label, there should be two lines grouping all the “bad fats”, e.g., saturated fat and trans fat,\textsuperscript{75} and “good fats”, e.g., Omega-3 fatty acids, polyunsaturated fat, and monounsaturated fat,\textsuperscript{76} together, and it should specify the percentage of calories from those particular fats. This distinction would help consumers understand where there calories are coming from and encourage Americans to consume more healthy saturated fats.

\textsuperscript{71} See, e.g., Mooney, supra note 50 (“[P]eanut butter can help people lose weight and keep it off, probably because it slows the return of hunger.”).
\textsuperscript{72} See Fats and Cholesterol: Out with the Bad, in with the Good, supra note 60.
\textsuperscript{74} See Fats and Cholesterol: Out with the Bad, in with the Good, supra note 60.
\textsuperscript{76} See id.
without fear of gaining weight.

The FDA should also include a calories from sugar line under the calories from fat line to help inform the consumer of how many sugar calories they will be consuming. Added sugar intake should be less than ten percent of your daily total calories, yet Americans currently consume an average of fifteen percent of their daily calories from sugar.\textsuperscript{77} In fact, the FDA cites in its proposal a number even higher than this, saying that “[a]dded sugars contribute an average of 16 percent of the total calories in American diets.”\textsuperscript{78} To put that into perspective, just one can of regular soda contains about 140 calories of added sugar, which would be about seven percent of the daily calories of sugar you should consume.\textsuperscript{79} Thus, it is imperative for consumers to know where their calories are coming from in order to limit their consumption of calories from sugar and help maintain their weight and overall health.

c. The Declaration of Added Sugars: A Sweet Triumph or a Sugar-Coated Distraction?

In its quest to decrease obesity in America, the FDA seeks to include added sugars to the Nutrition Facts label.\textsuperscript{80} Though this addition “[p]uts added sugars clearly in the cross hairs,” as Dr. David A. Kessler, the previous FDA Commissioner, says, it still leaves out critical information for the consumer: declarations of the specific artificial sweeteners, sugar alcohols, and sugar added to food prior to fermentation.\textsuperscript{81} Most importantly, it fails to address the root cause: American’s overconsumption of sugar.\textsuperscript{82} While the inclusion of added sugars on the label

\textsuperscript{77} See Nanci Hellmich & Michelle Healy, Can You Consume Only 5% of Calories from Sugar?, USA TODAY (Mar. 6, 2014, 4:37 PM), http://www.usatoday.com/story/news/nation/2014/03/06/cut-added-sugars/6116131/.

\textsuperscript{78} Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1, at 11904.

\textsuperscript{79} See Hellmich & Healy, supra note 77.

\textsuperscript{80} See Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1, at 11885.

\textsuperscript{81} See id. at 11902-08; see also Tavernise, supra note 5.

\textsuperscript{82} See Ramona Emerson, Bitter Sweet, ALLURE, Jan. 2014, at 87-91 (“Americans consume almost 40 percent more sugar now than they did in the 1950s, and many scientists blame that . . . for out-of-control weight gain, chronic diseases, and even premature aging.”).
may be well-intentioned, it fails to effectively address the foremost health problem afflicting American society: obesity.\(^{83}\)

The agency’s reasoning behind the inclusion of added sugars on the label is wholly contradictory. In its proposal, the FDA repeatedly cites an Institute of Medicine Report, which states not only that “[a]dded sugars are not chemically different from naturally occurring sugars . . . ,” but also recognizes that “[f]oods containing . . . added sugars are \textit{no more likely} to contribute to weight gain than any other source of calories . . . .”\(^{84}\) Thus, the FDA admits that there is virtually no link between the consumption of added sugars and obesity.\(^{85}\) If the FDA’s objective is to strategically reduce the obesity epidemic plaguing America, the declaration of added sugars is not a noteworthy way of doing so.

The FDA cites its reasoning for including added sugars on the label as helping Americans increase their intake of nutrient-dense foods and to help avoid dental caries.\(^{86}\) The proposal points to health groups such as the AHA and the World Health Organization which have recommended limiting consumption of added sugars not because of an increased risk of obesity, but rather to help decrease the intake of nonessential nutrients and lessen the prevalence of dental caries.\(^{87}\) It is clear that when the FDA proposed the declaration of added sugars on the label, it


\(^{85}\) \textit{See} Abdukadirov, \textit{supra} note 3.


did not have obesity in America in mind; however, the declaration of added sugars will provide consumers with some information about how much sugar is in their food, which is a small step toward enlightening consumers about all the ingredients and chemicals in their food products.

If, however, the FDA succeeds in requiring the declaration of added sugars on the label, it should also include the sugars added to foods prior to undergoing fermentation. Some examples of foods processed through fermentation are yogurt sweetened with sucrose, cheese, vinegar, vegetables, and meats. In essence, fermentation is the process that converts organic compounds, e.g., sugars, into simpler compounds, e.g., carbon dioxide, lactic acid, and ethyl alcohol. Thus, if the proposal is passed, consumers will be left in the dark as to how much sugar has been added to their food prior to undergoing fermentation, because the sugars added to foods prior to fermentation “will likely not” be consumed, according to the agency. The FDA explains its reasoning as a means to eliminate possible confusion for the consumer so that the amount of added sugars declared will not exceed the amount of total sugar present. Therefore, although the FDA wishes to inform consumers of all the added sugars present in their foods, they are still being deceptive and not forthright with consumers. Regardless of the possible confusion it may cause, consumers have a right to know what substances have gone into their food prior to consumption.

d. Labeling The Lesser Evils: Artificial Sweeteners & Sugar Alcohol

Johnson et al., Dietary Sugars Intake and Cardiovascular Heath: A Scientific Statement from the American Heart Association, AM. HEART ASSOC. (2009), available at http://circ.ahajournals.org/content/120/11/1011.full.

88 See Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1, at 11907 (“[W]ith the exception of yeast-leavened bakery products, wines with less than seven percent alcohol by volume, and beers that do not meet the definition of a “malt beverage” as defined by the Federal Alcohol Administration Act . . . will not be significantly affected by virtue of the food having undergone fermentation.”).
89 See id.
90 See id.
91 See id.
92 See id. at 11908.
From the moment Constantin Fahlberg, a John Hopkins University scientist, discovered the first artificial sweetener, America was hooked.93 As a country, we collectively spend $1.5 billion on artificial sweeteners every year.94

Aspartame, saccharine, and sucralose are the three artificial sweetener powerhouses in America, with aspartame reining as king.95 In fact, aspartame can be found in over 6,000 products96 on grocery store shelves from sodas to cereals to breath mints.97 Although sweet and delicious, artificial sweeteners disrupt the body’s natural ability to regulate calorie intake, leading people to overeat because their body is essentially being tricked into thinking they are consuming sugar, which is addictive.98

Aspartame, for example, has been marred with criticism regarding its safety on public health since its approval for dry goods in 1981 and for carbonated beverages in 1983.99 Aspartame has accounted for over 75 percent of adverse reactions (some severe) to food additives reported to the FDA.100 These adverse reactions range from headaches, digestive problems, birth defects, diabetes, and Alzheimer disease101 to seizures, hearing loss, brain

94 See The Dr. Oz Show (NBC television broadcast Oct. 8, 2012).
95 See Jason Iuliano, Killing Us Sweetly: How to Take Industry Out of the FDA, 6 J. FOOD L. & POLY 31, 51 (2010) (citing Consumer Products, ASPARTAME INFO. CENTER, http://www.aspartame.org/about/consumer-products/#U7q74BbXq0s (last visited Sept. 7, 2014) (“Currently, aspartame is consumed by over 200 million people around the world and is found in more than 6,000 products . . . .”); see also Dr. Joseph Mercola, The Deadly Neurotoxin Nearly Everyone Uses Daily, HUFFINGTON POST (Aug. 4, 2010, 8:00 AM), http://www.huffingtonpost.com/dr-mercola/aspartame-health-risks_b_668692.html.
97 See Aspartame’s Hidden Dangers, supra note 96.
98 See Oaklander, supra note 46.
100 Id.
101 See AM. CANCER SOC’Y, supra note 13.
tumors, Parkinson’s disease, formaldehyde buildup in the brain, frontal lobe inflammation, and cognitive problems.

Additionally, numerous studies in humans have been conducted over the years with varying evidentiary conclusions suggesting a strong possibility of carcinogenic properties in aspartame and other artificial sweeteners. In fact, two studies published by a group of Italian researchers suggested that high doses of aspartame may increase the risk of Leukemia and Lymphoma in rats. Even pilots are aware of the dangers of aspartame. It is well recognized within the Pilot Association that drinking diet sodas, which contain aspartame, can cause severe aberrations in pilots’ vision and lead to problems flying.

Unfortunately, consuming other artificial sweeteners is not a safer bet. Research studies conducted in the 1960s show rats developing malignant bladder tumors as a result of saccharine consumption. Cyclamate, an artificial sweetener generally used in conjunction with saccharine, was banned by the FDA in 1969 after findings suggested that it may increase the risk of cancer in humans. Sucralose, most popularly known by the brand name Splenda, has been shown to effect the body’s response to glucose, which could thereby affect diabetes risk.

Undoubtedly, the cancer concern of artificial sweeteners is not something to turn a blind eye to, and the FDA should include artificial sweeteners on the Nutrition Facts label for

102 See Aspartame: By Far the Most Dangerous Substance Added to Most Foods Today, supra note 99.
103 See HUNGRY FOR CHANGE, supra note 47.
104 See AM. CANCER SOC’Y, supra note 13 (“[E]arly stud[ies] [of Aspartame] suggest[] that an increased rate of brain tumors in the U.S. during the 1980s might have been related to aspartame use.”).
105 See id.
106 See HUNGRY FOR CHANGE, supra note 47.
107 See id.
108 See infra notes 109-146.
110 See NAT’L CANCER INST., supra note 109.
consumers to decide whether they wish to put such chemicals into their bodies and how much. However, because the FDA’s proposal appears to target obesity, the declaration of artificial sweeteners is crucial to have on the label. Consuming artificial sweeteners regularly can lead to excess belly fat; excess belly fat has been directly correlated to some big cancer risks – colon, pancreas, breast, and endometrial. Thus, even if consuming artificial sweeteners will not cause cancer directly, the obesity associated with it is directly linked to cancer.

As Dr. Mehmet Oz, a cardiothoracic surgeon, author, and television personality says, “artificial sweeteners absolutely can cause you to gain weight.” In fact, consumption of artificial sweeteners can lead to Metabolic Syndrome, a combination of high blood pressure, excess belly fat, and insulin resistance, which is a triple threat to one’s health. Furthermore, artificial sweeteners have been shown to have addictive qualities, sending addictive signals to the brain, causing you to crave more sugar-like substances. In fact, addicts of other substances like illegal drugs get stimulated in a similar way with sweet, sugary foods.

With this said, the FDA absolutely should include the specific types of artificial sweeteners present in food on the Ingredients label as well as making a declaration of it on the Nutrition Facts label so that consumers will know just how much artificial sweeteners are present in foods. With this declaration, consumers will be able to make healthier choices and be able to decide for themselves whether or not to pollute their bodies with this sweet chemical.

112 See Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1, at 11884-86 (discussing an increase in chronic illnesses and obesity over the last three decades).
113 See The Dr. Oz Show, supra note 94.
115 The Dr. Oz Show, supra note 94.
116 See id.
117 See id.
118 See id.
The use of sugar alcohols in packaged foods has become extensively popular because it impacts blood sugar levels in the body less, provides fewer calories per gram, and does not promote tooth decay. Because it requires little to no insulin to be metabolized, sugar alcohols are popular amongst diabetics. Additionally, because sugar alcohol has fewer calories than sucrose, i.e., table sugar, companies like to include it in their foods and then slap on a deceptive “low carb” label. For this reason, sugar alcohols dominate the grocery store shelves containing “low carb” foods. Additionally, foods containing sugar alcohols can be labeled as “sugar free”, however, many sugar-free foods contain more fat than their traditional counterparts, so the labeling is quite deceptive and can lead to consumers increasing their fat intake, thus leading to weight gain and obesity.

FDA regulations define sugar alcohols as the sum of saccharide derivatives in which a hydroxyl group replaces a ketone or aldehyde group, e.g., mannitol or sorbitol. Simply put, sugar alcohols are a type of carbohydrate; its structure is kind of a hybrid between a sugar molecule and an alcohol molecule. But since sugar alcohol is a type of carbohydrate, it is then

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119 See Eat Any Sugar Alcohol Lately?, YALE NEW HAVEN HOSP., http://www.ynhh.org/about-us/sugar_alcohol.aspx (last visited Sept. 7, 2014). (“[Sugar Alcohols] are converted to glucose more slowly, require little or no insulin to be metabolized and don’t cause sudden increases in blood sugar.”).
121 See YALE NEW HAVEN HOSP., supra note 118.
124 See Sugar Alcohols: Everything You Need to Know, supra note 123.
125 See Food Health Claims – Sugar Alcohols and Dental Caries, 60 Fed. Reg. 37507 (July 20, 1995) (explaining that the alcohol sugars eligible for the claim are xylitol, sorbitol, mannitol, maltitol, osomalt, lactitol, hydrogenated starch hydrolysates, hydrogenated glucose syrups, or a combination of these substances).
127 See Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1, 11908 (citing 21 C.F.R. §101.9 (c)(6)(iii)).
128 See Sugar Alcohols: Everything You Need to Know, supra note 123.
broken down in our bodies the way carbohydrates are.\textsuperscript{129} This means that eaten in excess, the carbohydrate, i.e., sugar alcohol, may be converted into fat cells, thus contributing to weight gain.\textsuperscript{130}

Carbohydrates, such as sugar alcohols, are commonly referred to as sugars, because they break down into the molecule glucose, which is the most common simple sugar.\textsuperscript{131} Glucose is the substance found in starch; it’s the energy of life and all cells in all organisms on the planet burn glucose to make energy.\textsuperscript{132} Carbohydrates are digested in your body and subsequently turn into the glucose.\textsuperscript{133} These glucose molecules then enter the blood stream, triggering the hormone insulin to take the excess glucose out of your body.\textsuperscript{134} The initial glucose will first be converted into glycogen (another molecule) and stored into your liver and muscles,\textsuperscript{135} but the leftover/excess glucose will be converted into triglycerides, or fat cells, thus making you gain weight.\textsuperscript{136} In even more scientific terms, glycerol is an example of a sugar alcohol.\textsuperscript{137} Triacylglycerol is a compound composed of three fatty acids plus glycerol.\textsuperscript{138}

\textsuperscript{131} SMITH, supra note 122, at 812.
\textsuperscript{134} See Groves, supra note 133.
\textsuperscript{135} See id.
\textsuperscript{136} See Crilly, supra note 130; see also \textit{Fats and Cholesterol: Out with the Bad, in with the Good}, supra note 60 (“[A]n excess of triglycerides can be unhealthy.”).
Pathway is an illustration of how glycerol itself can be converted into triglycerol if consumed in excess.¹³⁹

Thus, by the FDA allowing labels to say “low carb” but contain sugar alcohol is misleading because sugar alcohol can still be converted into sugar, i.e., glucose, and fat, i.e., triglycerides, in the human body, just like any other carbohydrate can.¹⁴⁰ Thus, it is important for consumers to decrease their consumption of simple carbohydrates, e.g., white bread and sugar alcohol¹⁴¹, in order to reduce their weight. Even a Harvard University study acknowledged that a low-carb diet seemed to help participants burn the most calories.¹⁴²

Besides promoting weight gain, sugar alcohol is also poorly digested and poorly metabolized.¹⁴³ Because the human body has difficulty digesting sugar alcohol, it exacerbates existing irritable-bowel-syndrome-related symptoms and can stimulate diarrhea.¹⁴⁴ Additionally, there are conflicting data regarding the effects of consuming sugar alcohols; some people with diabetes have found that their blood sugars rise if they consume sugar alcohols, which is undesirable.¹⁴⁵

In conclusion, while sugar alcohols might be slightly better for you than actual sugar, it is still not intrinsically healthy.¹⁴⁶ Although listed on the ingredients label, there should also be a section on the Nutrition Facts label declaring how much sugar alcohol is in the food product. Consumers likely understand “total sugars” as encompassing sugar alcohol; thus, information on

¹⁴⁰ See THE TRUE HEALTH JOURNAL., supra note 129.
¹⁴² See Gann & Albin, supra note 63.
¹⁴⁴ See Sugar Alcohols: Everything You Need to Know, supra note 123.
¹⁴⁵ See YALE NEW HAVEN HOSP., supra note 118.
¹⁴⁶ See Lagakos, supra note 143.
the Nutrition Fact label should be made readily available so that consumers are not forced to decipher confusing names on the Ingredients label.

e. The Need for DRV and Warning Labels for Sugar

Though the FDA is proposing to require the declaration of added sugars on the Nutrition Facts label, there remains to be any such warning labels for the possible toxic,\(^{147}\) carcinogenic,\(^{148}\) and addictive effects from added sugars.\(^{149}\) In fact, the FDA has not even established a DRV for sugars,\(^{150}\) because, put simply, sugar is not recommended.\(^{151}\) Thus, the consumer is left uncertain as to how much sugar they are supposed to be ingesting daily.

According to the AHA, the average American man should consume the maximum of nine teaspoons of sugar per day; the average American woman should consume a maximum of six teaspoons per day.\(^{152}\) The average American, however, consumes approximately twenty-two teaspoons of sugar per day.\(^{153}\) Sugar turns into fat in the body after it is ingested because it sends sugar levels sky high, making the pancreas produce insulin, which is the fat-producing hormone,\(^{154}\) that causes you to gain weight. Because there is no clear guidance from the FDA regarding DRV for sugar intake, obesity continues to flourish. Thus, the FDA should make a DRV of sugars for the consumers to better understand their sugar intake levels and to limit their overconsumption of unhealthy, sugary foods and drinks.

\(^{147}\) See Emerson, supra note 82 (“Sugar is a toxin – and we are overdosed.”).
\(^{148}\) See id. at 88 (“Robert Lustig, a pediatric endocrinologist at the University of California, San Francisco, . . . says the sharp rise in sugar consumption may even lead to cancer.”).
\(^{149}\) See Card, supra note 10, at 320 (“Sugars is addictive.”).
\(^{150}\) See Revisions to Nutrition Supplement and Nutrition Facts Labels, supra 1, at 11902.
\(^{151}\) See Emerson, supra note 82, at 88.
\(^{153}\) See HUNGRY FOR CHANGE, supra note 47.
\(^{154}\) See id.
Furthermore, warning labels informing consumers of the potential for increasing their risks of cancer or becoming obese due to consuming a particular food would be a simple, effective way to help curb the obesity epidemic. Since the FDA is trying to make America healthier through its proposal, and because it is scientifically proven that consuming high amounts of sugary foods and drinks inevitably leads to obesity, warning labels should be affixed to food products containing unhealthy amounts of sugar, based on a DRV of sugar which the FDA should establish.

Additionally, a warning label cautioning consumers of the potentially addictive nature of sugars would be extremely informative for the consumer. There is little doubt that sugar resembles alcohol and tobacco in that it is a material for which people rapidly develop a craving, but for which there is nevertheless no physiological need. Nicole Avena, assistant professor of psychiatry at the New York Obesity Research Center at Columbia University says that sugar has been found to release dopamine in the area of the brain associated with reward and reinforcement in animal studies. With most foods, however, dopamine is only released the first time you eat it; with sugar, dopamine is released every time, thus causing the consumer to become addicted. Jason Wale, author and addiction expert, explained it best when he stated that “sugar is without question the cocaine of the food world.”

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155 See Emerson, supra note 82, at 88.
156 But cf. Card, supra note 10, at 320 (discussing how a label warning consumers of the link between consuming sugar and their risk of obesity may violate manufacturers’ First Amendment rights) (“[T]his textual statement is unreasonable because it requires more disclosures restricting manufacturers’ advertising.”). See Emerson, supra note 82, at 88.
159 See Emerson, supra note 82 at 90.
160 See id.
162 See HUNGRY FOR CHANGE supra note 47.
Thus, since the FDA includes warning labels on tobacco and alcohol products cautioning consumers of its addictive nature, a similar label should be affixed to foods containing high amounts of sugar, added sugars, and artificial sweeteners, based upon a DRV, which the FDA should establish.\footnote{But cf. Card, supra note 10, at 320 (“If the FDA required a textual statement for obesity, what would stop the agency from requiring textual statements for other adverse health consequences stemming from food, such as cancers, heart disease, and diabetes?”).}

III. Still Missing From the Label

a. Failing to Label Fatty Acids Makes You a Fatty

A critical distinction left off the Nutrition Facts label is the declaration of the Omega-3 and Omega-6 fatty acids.\footnote{See FDA Finalizes Rule Prohibiting Certain Nutrient Content Claims for DHA, EPA, and ALA Omega-3 Fatty Acids, U.S. FOOD & DRUG ADMIN. (Apr. 25, 2014), http://www.fda.gov/Food/NewsEvents/ConstituentUpdates/ucm394855.htm.} Omega-3 and Omega-6 are essential fatty acids that must be obtained from our diets; our bodies cannot create them on its own.\footnote{See Dr. WEIL.COM, http://www.drweil.com/drw/u/QAA400149/balancing-omega-3-and-omega-6.html (last visited Sept. 7, 2014).} Although the words “fatty acids” may confuse consumers into thinking this is bad for their health, these fatty acids are essential for our diets and play a crucial role in brain function, normalizing growth and development, maintaining bone health, regulating metabolism and the reproductive system, reducing inflammation,\footnote{See Dr. Frank Sacks, Ask the Expert: Omega-3 Fatty Acids, HARVARD SCH. OF PUB. HEALTH, http://www.hsph.harvard.edu/nutritionsource/omega-3/ (last visited Sept. 7, 2014); see also Dr. WEIL.COM, supra note 164.} reducing the risk of cardiovascular disease, and even helping you live longer.\footnote{See Alison Goldman, The Dinner That Could Help You Live Longer, WOMEN’S HEALTH (Apr. 9, 2013), http://www.womenshealthmag.com/nutrition/the-dinner-that-could-help-you-live-longer.}

There is, however, great importance in balancing these two fatty acids in your diet in order for our bodies to be healthy and function normally.\footnote{See Susan Allport, Omega-3 Deficiency May Be Hurting Our Hearts, NBC NEWS (Oct. 23, 2009), http://www.nbcdn.com/id/32957460/ns/health-heart_health/t/omega--deficiency-may-be-hurting-our-hearts/#.U8q5GVYV20s.} Most Americans consume more
Omega-6 fatty acids than Omega-3 fatty acids, which can lead to blood clotting, inflammation, and heart disease.\textsuperscript{169} According to the United States Department of Agriculture ("USDA"), since 1909, Americans have more than doubled their daily intake of Omega-6s, from about seven grams to around eighteen, which is directly linked to the increase in heart disease in this country.\textsuperscript{170} Most shockingly is the research conducted by Harvard University evidencing an Omega-3 deficiency in America, contributing to approximately 96,000 deaths per year.\textsuperscript{171}

Consuming more Omega-6 fatty acids is also correlated to obesity; Omega-6 fatty acids are the main polyunsaturated fat in the storage fat of animals, i.e., white adipose tissue, also known as belly fat.\textsuperscript{172} Even the FDA states in its proposal that “[c]ertain fatty acids are understood to be beneficial, while others are understood to have negative health effects, particularly related to cardiovascular disease.”\textsuperscript{173} Yet, in April of this year, the FDA banned most Omega-3 claims on food labels\textsuperscript{174} so that statements on labels claiming a food product is “high in,” “rich in,” or an “excellent source of” Omega-3 fatty acids is prohibited.\textsuperscript{175} The FDA believes that these nutrient content claims relating to Omega-3 fatty acids interfere with consumers’ ability to understand the nutritional value of a food product.\textsuperscript{176} Such statements, however, are crucial for consumers to understand which types of fats they are consuming.

\begin{footnotes}
\item[169] See id. (explaining how Omega-6 fatty acids are more seed fats from soybean, corn, and vegetable oils).
\item[170] See id.
\item[172] See Allport, supra note 168.
\item[173] See Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1, at 11891.
\item[176] See id.
\end{footnotes}
Thus, the declaration of Omega-3 and Omega-6 fatty acids is vital for American consumers to distinguish between the bad fats and good fats they have in their diets. Additionally, the declaration of these fatty acids will undoubtedly help reduce obesity in America or at least bring awareness to the disparity between the bad fats and good fats consumed by Americans.

b. Stop Hiding the Ball on Trans Fats

Trans fats are considered by many doctors to be the worst type of fat there is, causing a drastic increase in your “bad” (LDL) cholesterol levels and a decrease in your “good” (HDL) cholesterol level. The imbalance of good and bad cholesterol is linked to an increased risk of heart disease, which is the leading killer of men and women in America. Interestingly, the Centers for Disease Control and Prevention estimates that a simple reduction of trans fat in the food supply can prevent 7,000 deaths from heart disease each year and up to 20,000 heart attacks each year.

As of January 1, 2006, the FDA began requiring the declaration of trans fat on the Nutrition Facts label to help consumers reduce their intake of trans fat, and ultimately reduce their risk of coronary heart disease. The FDA agrees with expert groups such as the Institute of Medicine and the AHA that trans fats have a strong effect on the risk of coronary heart disease.

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178 See id.
182 See Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1, at 11936.
disease, yet still permits manufactures to claim a food has zero trans fats when it may contain up to .50 grams per serving.

The declaration of zero trans fats on the label of certain food products that actually contain trans fats is highly misleading to consumers. A consumer could potentially eat generous amounts of foods containing .50 grams of trans fats per serving and essentially increase their intake of trans fats without even knowing it. The agency even admits that “[s]electing foods with even small amounts of trans fat can add up to a significant intake,” thus it is imperative that the full trans fat amount be listed on the Nutritional Facts label for consumers to be appropriately informed.

c. MSG: Flavor Enhancer or Waistline Expander?

Of all the ingredients and chemicals hidden from the Nutrition Facts label, MSG may be the most dangerous. Hidden under a slew of names on the Nutrition facts label, from “yeast extract” and “rice syrup” to “natural ingredients” and “spices and flavoring,” this food additive has been shown to cause widespread side effects, including obesity.

MSG is a salt that is chemically converted into a flavor enhancer and found in an estimated 80% of processed foods on American grocery store shelves today. The FDA considers the addition of MSG to foods to be GRAS, although many people identify themselves

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184 See Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1, at 11936; see also Bradley, supra note 17.
185 See FDA Targets Trans Fat in Processed Foods, supra note 179.
186 See Minton, supra note 18.
189 See Questions and Answers on Monosodium Glutamate (MSG), supra note 27.
190 See, e.g., Minton, supra note 18.
191 See id.
192 See HUNGRY FOR CHANGE supra note 47; see also Lipman, supra note 188.
as sensitive to MSG and a number of dangerous side effects have been associated with it. In the 1990s, the Federation of American Societies for Experimental Biology conducted an experiment for the FDA in which it reported symptoms such as headaches, numbness, flushing, tingling, and heart palpitations in people who consumed MSG. There are also more severe symptoms associated with MSG consumption such as liver inflammation and dysplasia, Alzheimer’s disease, eye damage, and, most notably, weight gain.

Research has shown that MSG causes obesity in lab animals by damaging the hypothalamus, the appetite-regulation center in the brain, causing Leptin resistance. Leptin is the hormone that controls the feeling of fullness and satisfaction after eating a meal; thus, consuming MSG interferes with that satiated feeling, resulting in overconsumption. In fact, when scientists wish to conduct experimental studies on obese lab rats, they feed those mice MSG to make them fatter. A simple Internet search of “MSG obesity-induced mice” shows that by injecting MSG into lab rats, they rapidly become obese.

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193 See Questions and Answers on Monosodium Glutamate (MSG), supra note 27.
194 See id.
195 See Joseph Minton, supra note 18.
197 See Minton, supra note 18.
198 See id.
199 See id.
200 See, e.g., Tsuneyama et al., Neonatal Monosodium Glutamate Treatment Causes Obesity, Diabetes, and Macrovesicular Steatohepatitis with Liver Nodules in DIAR Mice, 29 J. Gastroenterology & Hepatology 1736, 1736 (2014), available at http://onlinelibrary.wiley.com/store/10.1111/jgh.12610/asset/jgh12610.pdf?v=1&t=hzlx0mmg&s=510c40c8f957e084f41229df0fc134f1a257cb38 (discussing the experiment of MSG-treated mice over a 54-week span) (“The body mass index and blood glucose levels of [the MSG-treated mice] were significantly higher than controls . . . .” “[C]holesterol as well as triglyceride accumulated in the liver of [the MSG-treated mice].”).
Not only does MSG cause obesity, it is also a highly addictive chemical known as an “excitotoxin,” meaning it excites the part of the brain in charge of the fat programs\textsuperscript{202} and can cause brain damage.\textsuperscript{203} Essentially, MSG over-stimulates the brain, causing it to produce excessive amounts of dopamine,\textsuperscript{204} the “feel-good hormone.”\textsuperscript{205} The dopamine production creates a drug-like rush that essentially addicts the customer, and tricks them into overeating.\textsuperscript{206} In other words, MSG neurologically causes people to experience a more intense flavor from the foods they eat, which in turn causes them to eat more.\textsuperscript{207} Thus, food companies are essentially manipulating the chemical structure of food so that it now becomes nutritionally empty, but gives the consumer the impression when they ingest it that it is the most fulfilling thing they have ever had.\textsuperscript{208}

Although the FDA requires that foods containing added MSG list it on the Ingredient label, naturally-occurring MSG in ingredients such as hydrolyzed vegetable protein, autolyzed yeast, soy extracts, and protein isolates do not need to be specified on the label.\textsuperscript{209} Moreover, as mentioned previously, food companies disguise MSG on the label under 50 different names,\textsuperscript{210} which undoubtedly confuses consumers into thinking they are not eating foods containing MSG, when they actually are.

It is time for the FDA to require mandatory labeling of MSG products on the Nutrition Facts label to help not only MSG-sensitive individuals but also the general public choose for

\textsuperscript{202}See HUNGRY FOR CHANGE, supra note 47.
\textsuperscript{203}See Minton, supra note 18.
\textsuperscript{204}See id.
\textsuperscript{206}See Minton, supra note 18; see also FOOD MATTERS (Permacology Productions).
\textsuperscript{208}See HUNGRY FOR CHANGE, supra note 47
\textsuperscript{209}See Questions and Answers on Monosodium Glutamate (MSG), supra note 27.
\textsuperscript{210}See HUNGRY FOR CHANGE, supra note 47; see also FOOD MATTERS, supra note 206.
themselves whether to allow this chemical pollutant into their bodies. Additionally, a warning label should be affixed to food products containing added MSG cautioning consumers of the direct link between MSG consumption and obesity and illness.

d. Glycemic Index: Carbo-loading Without Realizing It

Currently the United States does not list a food’s Glycemic Index (“GI”) score on the Nutrition Facts label, which would be extremely useful information for the consumer in managing their weight and maintaining their health.211 Low-GI foods are helpful to reduce the risk of type 2 diabetes and heart disease, can help control blood glucose for diabetics, and may also help with weight management.212 Most people associate concern over one’s consumption of high glycemic index foods with diabetic individuals,213 whom account for more than 29 million Americans;214 however, studies have shown that the general population can benefit from a low-GI diet as well.215

Simply stated, the GI is a ranking of carbohydrates in foods according to how they affect blood glucose levels.216 Carbohydrates with a low GI value, i.e., 55 or less, are more slowly digested, thus creating a slower rise in insulin levels.217 Glycemic Load (“GL”), on the other hand, is a measure of both the quality, i.e., the GI value, and quantity, i.e., grams per serving, of

215 See Mooney, supra note 50.
217 See id.
a carbohydrate in a food. Mathematically, GL is determined by multiplying a food’s GI by the amount of carbohydrates the food contains, and dividing it by 100.

According to the GI, foods are ranked as low, moderate, or high-GI, depending upon the amount and type of carbohydrate present in that food. Consuming high-GI foods results in higher and more rapid increases in blood glucose levels than consuming low-GI foods; insulin levels rise as well. In response to the excess insulin secretion, blood glucose levels drop lower over the next few hours, in turn causing you to feel hungry again, thus more likely to overeat.

This cycle was shown in a study published in the Journal of the American Academy of Pediatrics, which evaluated twelve obese teenage boys and their consumption of low, medium, and high GI meals. The results showed that after the boys consumed a high-GI meal, their bodies induced a sequence of hormonal and metabolic changes that promoted excessive food intake.

Harvard University recently conducted a research study published in the Journal of the American Medical Association, in which researchers found that following a low-GI diet may be preferable to a low-fat diet for those trying to achieve lasting weight loss. In fact, consuming low-GI meals helped participants burn more calories and did not increase the disease-causing stress markers in the body. Furthermore, numerous studies have found results in favor of

218 See id.
219 See id.
222 See id.
223 See David S. Ludwig, M.D. et al., High Glycemic Index Foods, Overeating, and Obesity, 103 J. OF AM. ACAD. OF PEDIATRICS 1, 1-6 (1999), available at http://pediatrics.aappublications.org/content/103/3/e26.full.
224 See id.
225 See Gann & Albin, supra note 63.
226 See id.
weight-loss diets based on GI as well as a link to cancer risk from having a diet high in GI and GL.

Although the GI is not a perfect guide for choosing a healthy diet, it offers useful information for the consumer to choose healthier foods, which will have a gentler effect on blood sugar. Consuming foods that make your blood sugar spike and then plunge on a regular basis is undoubtedly unwise for your health. By disclosing a food’s GI and GL, the consumer will be able to make better health decisions for their health.

e. The Caffeine Crackdown

Currently in the United States, there are no requirements for labeling or limiting the addition of caffeine to foods except for soda, which is limited to 200 parts per million. Caffeine that is present naturally in food does not require labeling, but added caffeine in foods must appear on the list on ingredients. According to the FDA, the amount of caffeine in a product is not required on the Nutrition Facts label because caffeine is not considered a nutrient. Instead, the FDA categorizes caffeine as both a drug and a food additive that is GRAS, despite the controversial studies and evidence suggesting the dangers of caffeine.

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228 See e.g., Patrizia Gnagnarella et al., Glycemic Index, Glycemic Load, and Cancer Risk: A Meta-Analysis, 87 AM. J. CLINICAL NUTRITION 1793, 1793 (2013), available at http://ajcn.nutrition.org/content/87/6/1793.long (“This comprehensive meta-analysis of GI and GL and cancer risk suggested an overall direct association with colorectal and endometrial cancer.”); see also Isabelle Romieu et al., Dietary Glycemic Index and Glycemic Load and Breast Cancer Risk in the European Prospective Investigation into Cancer and Nutrition (EPIC), 96 AM. J. CLINICAL NUTRITION, 345, 345 (2012), available at http://ajcn.nutrition.org/content/96/2/345.long (“[A] diet with a high GL and carbohydrate intake is positively associated with an increased risk of developing [breast cancer] in women.”).
229 See Skerrett, supra note 220.
230 See Bradley, supra note 17.
But it is not just the typical food sources that contain naturally-occurring caffeine, e.g., tea, coffee, and chocolate, that can potentially harm consumers; caffeine also turns up in unexpected places, in unexpected amounts. Many products on the market such as chewing gum, candy bars, energy drinks, ice cream and snacks contain added caffeine, leaving consumers in the dark about just how much caffeine the product contains.

Knowing the caffeine content of food products is crucial information to the consumer for a variety of reasons. Caffeine is linked to a slew of negative health effects, including restlessness, mood swings, dehydration, heart problems, exaggerating attention deficit disorder, hyperactivity and insomnia, increasing blood pressure, heart rate, and secretion of stress hormones, and hampering the body’s ability to regulate blood sugar levels. Even more alarming is the research suggesting that developing fetuses can be harmed by caffeine, which is why the FDA suggests pregnant women to limit their intake of caffeine.

Even the FDA Database of Select Committee on GRAS Substances discuss the dangers of caffeine, stating that caffeine not only causes chromosomal damage in certain microbial and other non-mammalian test systems, but a recent report has indicated that rats given caffeine orally at daily doses of 150 to 250 milligrams per kilogram for fifteen months developed cancer

235 See Conis, supra note 232.
236 See id.
237 See Wong, supra note 231.
238 See Conis, supra note 232.
240 See Wong, supra note 231.
241 See Conis, supra note 232.
242 See id. (“Several studies have linked the consumption of . . . caffeine daily during pregnancy to an increased risk of miscarriage and low birth weight.”).
of several organs. The FDA also acknowledges the addictive quality of caffeine, suggesting consumers reduce their caffeine consumption “[s]lowly to make withdrawal symptoms like bad headaches, and feeling tired, and depressed as mild as possible.”

Emergency rooms across the country have seen a dramatic spike in caffeine overdoses, up from 1,128 in 2005 to 16,055 in 2008 and 13,114 in 2009. These illnesses and fatalities could have been prevented with a simple label on each product disclosing the amount of caffeine and the recommended serving. Additionally, a warning label cautioning the consumer of the amount of caffeine in the product and the amount they should not exceed, would be greatly beneficial.

IV. Legal Analysis

a. The FDA Has the Authority to Mandate Certain Nutrients on the Nutrition Facts Label

The Commissioner of Food and Drugs is the head of the FDA and reports to the Secretary of Health and Human Services, who is supposed to promote “[h]onesty and fair

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246 See Caffeine: How Much Is Too Much?, supra note 238 (“400 milligrams [mg] of caffeine a day appears to be safe for most healthy adults . . . .” “[Caffeine] is not a good idea for children.” “[A]dolescents should limit themselves to no more than 100 mg of caffeine a day.”).
dealing in the interest of customers." When the FDA issues a proposal to change rules or regulations, it usually seeks comment papers from members of the public and various organizations. In response to this proposal, the FDA has received over 6,000 comments, which it will review and consider before issuing its final rule.

The FDCA clearly states the mission of the FDA as being to “[p]romote the public health by promptly and efficiently reviewing clinical research and taking the appropriate action . . . .” Additionally, the FDA must ensure that “[f]oods are safe, wholesome, sanitary, and properly labeled.” With the developing scientific data concluding that certain ingredients are harmful to ingest, the FDA is not following their mission to promote public safety and healthfulness but allowing such ingredients to be in food products and not on the Nutrition Facts label.

Through the enactment of the NLEA, the agency clearly has the power to require labeling of fatty acids, antioxidants, glycemic index, caffeine, trans fat, artificial sweeteners, and MSG. In fact, the NLEA states that the “[i]f the Secretary determines that [the labeling of] a nutrient . . . will assist consumers in maintaining healthy dietary practices, [she] may by regulation require that information.” Undoubtedly, the labeling of the nutrients and ingredients discussed above is vital for the health and wellbeing of this country. The available scientific resources have

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250 See Food Labeling: Revision of the Nutrition and Supplement Facts Label Comment Period, supra note 249.


252 See id. § 393 (b)(2)(A); see also Jones v. ConAgra Foods, Inc., 912 F. Supp. 2d 889, 895 (N.D. Cali. 2012) (“The FDCA gives the FDA the responsibility to protect the public health by ensuring that foods are safe, wholesome, sanitary, and properly labeled.”) (internal quotation marks omitted).

253 See generally NUTRITION LABELING & EDUC. ACT OF 1990 § 343; see also Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1, at 11888 (“[T]he 1990 amendments permit the Secretary of Health and Human Services to include in the Nutrition Facts label any information about a nutrient that will assist consumers in maintaining healthy dietary practices.”).

improved substantially in the past few decades, and will continue to improve. The research and data cited above clearly suggests a link between certain harmful ingredients and illness and certain beneficial nutrients and healthfulness.

The Secretary has the “[d]iscretion to take new information into account and the ability to require that the nutrition label of foods be consistent with new research and other information.”\textsuperscript{256} Undoubtedly, new scientific research and data in the years since the enactment of the NLEA suggest a need for labeling of crucial nutrients on the label.

The Supreme Court of the United States has held that federal agencies should “[a]dapt rules and policies to demands of changing circumstances.”\textsuperscript{257} The Court has also held that regulatory agencies “[d]o not establish rules of conducts to last forever they are supposed . . . to adapt their rules and practices to the Nation’s needs.”\textsuperscript{258} Clearly, America is facing an obesity and illness crisis that the food industry is perpetuating with its deceptive labeling practices. The FDA clearly has the authority to propose newer, more noteworthy proposals, and it is within the Secretary’s authority to confirm such changes.

In fact, according to a provision of the NLEA:

if the food for which the claim is made does not contain, as determined by the Secretary by regulation, any nutrient in an amount which increases to persons in the general population the risk of a disease or health-related condition which is diet related, taking into account the significance of the food in the total daily diet, except that the Secretary may by [sic] regulation permit such a claim based on a finding that such a claim would

\begin{itemize}
\item \textsuperscript{256} See 187 H.R. Rep. 101-538, 101st Cong. 2d Sess. (1990) at 14 (“If the Secretary determines that a nutrient . . . will assist consumers in maintaining healthy dietary practices, the Secretary may . . . require that information relating to such additional nutrient be included in the label or labeling of such food.”).
\item \textsuperscript{257} See In re Permian Basin Area Rate Cases, 390 U.S. 747, 784 (1968).
\end{itemize}
assist consumers in maintaining healthy dietary practices and based on a requirement that the label contain a disclosure of the type required by subparagraph”.

As shown above, the declaration of certain nutrients such as fatty acids, antioxidant levels, and trans fats is important to consumers to maintain healthy dietary practices. It is duly important for the FDA to require disclosure of harmful, addictive ingredients such as MSG and artificial sweeteners that do nothing but negatively affect one’s health. Any food is considered misbranded if the labeling does not conform with the requirements for nutrient content or health claims. Thus, under the NLEA, a food is misbranded “[u]nless its label bears . . . in case it is fabricated from two or more ingredients, the common or usual name of each such ingredient.” Thus, MSG, for example, should be clearly shown on the label as “MSG”, instead of listed as over fifty different names, which poses confusion for the consumer.

In the past, when the FDA’s authority to require labeling was ambiguous, Congress responded by enacting regulation to strengthen FDA authority. In fact, Congress initially enacted the NLEA in order to strengthen FDA’s authority to require nutrition labeling on foods and to avoid the possibility of protracted litigation over the comprehensive nutrition labeling regulations that the agency adopts. Thus, Congress can clearly step in and enact a law for mandatory labeling requirements if the FDA fails to do so itself.

b. The FDA Has the Authority to Require Warning Labels for Unhealthy Food Products

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261 See 21 U.S.C. §343(i)(2); see also id. at 896.
262 See HUNGRY FOR CHANGE, supra note 47; see also FOOD MATTERS, supra note 206.
The FDA currently does not require warning labels for food products containing unhealthy amounts of MSG, caffeine, trans fatty acids, among other ingredients and chemicals. The FDA also has the authority to affix warning labels on food products that contain excessive amounts of fats and sugar or other ingredients known to cause obesity and illness. According to the Code of Federal Regulations, the FDA requires companies to affix warning labels on products that may cause illness or death, such as protein products, foods containing psyllium husk, juices that have not been specifically processed, and shell eggs. Clearly, the FDA can see that the nutrients and ingredients discussed above have been linked to numerous serious health side effects, and that a warning label would greatly benefit this nation.

The FDA director and federal health officials, to no avail, have had the discussion of warning labels on food products in the past. Previous FDA Commissioner, Lester M. Crawford, was attempting to transform the food labels “from providing information to providing warnings” in order to help shrink America’s waistline. Now is the time to implement these strategies and require warning labels on products that harm America’s health.

Again, Congress may step in and enact a law requiring companies to bear warning labels on food products containing unsafe ingredients if the FDA refuses to do so itself. On November 23, 1977, Congress passed the Saccharin Study and Labeling Act, which required companies that used the artificial sweetener to affix a warning label on such food products stating: use of this

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265 See Questions and Answers on Monosodium Glutamate (MSG), supra note 27.
266 See Why Isn’t the Amount of Caffeine a Product Contains Required on a Food Label?, supra note 233.
267 See Revisions to Nutrition Supplement and Nutrition Facts Labels, supra note 1, at 11936 (discussing the voluntary declaration of trans fats when the total fat content of a food is less than 0.5 grams).
269 See id. § 101.07(d)(1)-(6).
270 See id. § 101.07(f)(1)-(2).
271 See id. § 101.07(g)(1)-(7).
272 See id. § 101.07(h)(1)-(7).
273 See generally Mishra, supra note 19.
274 See generally id.
product may be hazardous to your health; this product contains saccharin which has been determined to cause cancer in laboratory animals.”275 In 2000, however, the National Toxicology Program of the National Institute of Health concluded that saccharin should be removed from the list of potential carcinogens after only approximately thirty human studies demonstrated the results found in rats were not relevant to humans.276 Thus, the products containing saccharin no longer have to bear a warning label.277

In conclusion, the FDA Commissioner should propose to require warning labels on known unhealthy food products. If such a proposal is not created, however, Congress should take action and enact a law requiring food companies choosing to sell dangerous food products to require warning labels for consumers.

IV. Conclusion

From a consumer’s standpoint, it appears that the declaration of both nutrients and harmful substances in foods is essential information for making good dietary decisions. Although America has come a long way from the days of organic farming practices, daily consumption of unprocessed foods, and the absence of harmful ingredients in foods, this should not justify the ongoing deceptive practices permitted by the FDA. Indeed, America no longer consumes food, it consumes food-like products,278 thus, alarms should be sounded when the majority of food this country consumes is filled with dangerous chemicals and ingredients.

Although the FDA has oversight committees comprised of citizens who are experts in the field of nutrition and science, it seems that their opinions oftentimes do not carry much

277 See id.
278 See HUNGRY FOR CHANGE, supra note 47.
weight. The Food Advisory Committee claims that it makes recommendations on emerging food safety, food science, and nutrition issues and make recommendations on matters relating to labeling of foods, nutritional adequacy of foods, and safe exposure limits for food contaminants; however, even with scientific literature pointing to the dangers of consuming certain harmful ingredients and chemicals, these additives remain on American grocery shelves. Additionally, even with the scientific literature explaining the importance of Americans understanding the health benefits and possible health troubles associated with certain nutrients, many of these nutrients still left off the Nutrition Facts label.

The FDA clearly needs to step up its game and introduce a new, stricter proposal requiring mandatory, full-disclosure of certain harmful nutrients, e.g., trans fats, and artificial sugars, and provide warning labels on food products containing high amount of chemicals, additives, and harmful ingredients known to cause obesity and illness. If not, Congress needs to then take action by enacting laws requiring food companies to disclose the nutrients and chemicals discussed in this comment on the Nutrition Facts label and require warning labels on food products known to cause illness or death.


280 See Advisory Committees, supra note 279.